VOLUME CONTENTS

Number 1

J.-W. Chen and C.-Y. Lee	1	Representing Grain Size of Bed Material
R. O. Grossi, B. del V. Arenas and P. A. A. Laura	19	Free Vibration of Rectangular Plates with Circular Openings
T.-W. Hsu and S.-H. Ou	25	Wave Boundary Layers in Rough Turbulent Flow
D. V. Bambill, R. E. Rossi, V. Jederlinic and C. A. Rossit	45	Vibrations of a Rectangular Plate with a Free Edge in the Case of Discontinuously Varying Thickness
P. A. A. Laura, R. H. Gutierrez, V. Sonzogni and S. Idelsohn	51	Buckling of Circular, Annular Plates of Non-uniform Thickness
A. G. Abul-Azm and A. N. Williams	63	Oblique Wave Diffraction by Segmented Offshore Breakwaters
		Technical Note
H. T. Wang and R. B. Guenther	83	Calculation of the Far Field Finite Depth Green's Function
	I	*Publications Received*
	II	*Conference*
	II	*News Item*

Number 2

J. A. Smith and K. F. Rieder	95	Wave Induced Motion of FLIP
A. S. Atadan, S. M. Calisal, V. J. Modi and Y. Guo	111	Analytical and Numerical Analysis of the Dynamics of a Marine Riser Connected to a Floating Platform
D. Boote, D. Mascia, M. Monti, E. Rizzuto and R. Tedeschi	133	Elastic Instability of Thin Cylindrical Shells: Numerical and Experimental Investigation

R. Latorre	161	Ship Hull Drag Reduction Using Bottom Air Injection
H.-H. Hsu and Y.-C. Wu	177	The Hydrodynamic Coefficients for an Oscillating Rectangular Structure on a Free Surface with Sidewall
	I	*Erratum*

Number 3

B.-F. Chen and C.-F. Huang	201	Nonlinear Hydrodynamic Pressures Generated by a Moving High-rise Offshore Cylinder
R. S. Alassar and H. M. Badr	217	Analytical Solution of Oscillating Inviscid Flow Over Oblate Spheroids with Spheres and Flat Disks as Special Cases
G. Rajasekaran, K. Murali and R. Srinivasaraghavan	227	Fabric and Mineralogical Studies on Lime Treated Marine Clays
P. R. Payne	235	The Response of a Hydrofoil to Wave Orbital Velocity Fields
P. Boccotti	265	A General Theory of the Three-dimensional Wave Groups. Part I: The Formal Derivation
P. Boccotti	281	A General Theory of the Three-dimensional Wave Groups. Part II: Interaction with a Breakwater

Number 4

D. S. Zhu and Y. K. Cheung	301	Optimization of Buoyancy of an Articulated Stinger on Submerged Pipelines Laid with a Barge
P. C. Chatterjee, P. K. Das and D. Faulkner	313	A Hydro-structural Analysis Program for TLPs
X. Ren, K.-H. Wang and K.-R. Jin	335	A Boussinesq Model for Simulating Wave and Current Interaction
B. Carstens and P. G. Sayer	351	Hydrodynamic Interactions Between Two Vertical Circular Cylinders in Linear Oscillatory Flow
S. A. Mavrakos	381	Hydrodynamic Characteristics of Floating Toroidal Bodies

Number 5

A. P. Shashikala, R. Sundaravadivelu and C. Ganapathy	401	Dynamics of a Moored Barge Under Regular and Random Waves
L. Huyse, M. C. Singh and M. A. Maes	431	A Static Drilling Riser Model Using Free Boundary Conditions
K. Idris, J. W. Leonard and S. C. S. Yim	445	Coupled Dynamics of Tethered Buoy Systems
A. N. Williams and A. G. Abul-Azm	465	Dual Pontoon Floating Breakwater
O. Gottlieb and S. C. S. Yim	479	Nonlinear Dynamics of a Coupled Surge–Heave Small-body Ocean Mooring System
	497	*Corrigendum*
	499	*Conference*
	500	*Publications Received*

Number 6

I. Sahin, J. W. Crane and K. P. Watson	501	Application of a Panel Method to Hydrodynamics of Underwater Vehicles
S. Aranuvachapun, S. J. Maskell and C. Griffiths	513	Spatial Length Scale Analysis of Data from Observations and a Model of the Iceland–Faeroes Front
M. A. Zumberge	531	Precise Optical Path Length Measurement Through an Optical Fiber: Application to Seafloor Strain Monitoring
C. A. Rossit and P. A. A. Laura	543	A Unified, Polynomial Approach for the Approximate Solution of Thermoelastic Problems in Rectangular Plates
W. Magda	551	Wave-induced Uplift Force on a Submarine Pipeline Buried in a Compressible Seabed

Number 7

A. K. Jain	577	Nonlinear Coupled Response of Offshore Tension Leg Platforms to Regular Wave Forces
S. Wu, J. J. Murray and G. S. Virk	593	The Motions and Internal Forces of a Moored Semi-submersible in Regular Waves
V. S. Tikhonov, V. I. Lebedev and A. V. Kotov	605	Numerical Simulation of Longitudinal Tackle Oscillations when Salvaging Sunken Vessels from Deep Water
Y. S. Lin and D. S. Jeng	623	The Effects of Variable Permeability on the Wave-induced Seabed Response
J.-M. Lo	645	The Effect of Air-bubble Barriers in Containing Oil-slick Movement
		Technical Note
R. Natarajan and C. Ganapathy	665	Model Experiments on Moored Ships

Number 8

P. Nguyen and S. Kocabiyik	677	On a Translating and Transversely Oscillating Cylinder. Part 1—the Effect of the Strouhal Number on the Hydrodynamic Forces and the Near-wake Structure
M. Söylemez and A. Incecik	695	Identification of Non-linear Effects in Predicting the Motion Response of an Offshore Platform
S. Aranuvachapun and S. J. Maskell	721	A Residual Analysis Method for Quantitative Comparison of Spatial Data from the Iceland–Faeroes Front
J. Ramos and C. Guedes Soares	743	On the Assessment of Hydrodynamic Coefficients of Cylinders in Heaving
F. S. Hover	765	Simulation of Stiff Massless Tethers

Number 9

N. J. Shankar, H. F. Cheong and S. Sankaranarayanan	785	Multilevel finite-difference model for three-dimensional hydrodynamic circulation

H. H. Lee	817	Stochastic analysis for offshore structures with added mechanical dampers
S. K. Chakrabarti and D. Kriebel	835	Wave kinematics for simulated shallow water storm waves — analysis and experiments
G. Rajasekaran and S. Narasimha Rao	867	The microstructure of lime-stabilized marine clay
		Technical Note
A. Sarkar, M. Mohan and R. Kumar	879	Inter-comparison of model-predicted wave heights with satellite altimeter measurements in the north Indian Ocean

Number 10

D. S. Jeng	887	Wave-induced Seabed Instability in Front of a Breakwater
N. Chioukh and R. Narayanan	919	Computation of the Inertia-dominated Forces on Horizontal Circular Cylinders Placed in Oblique Waves and Near to a Plane Bed
N. F. Casey and P. A. A. Laura	935	A Review of the Acoustic-emission Monitoring of Wire Rope
C. C. Fang, H. S. Chan and A. Incecik	949	Investigation of Motions of Catamarans in Regular Waves — II
		Technical Note
J. S. Mani, K. Murali and K. Chitra	967	Prediction of Shoreline Behaviour for Madras, India — a Numerical Approach
		Technical Note
P. A. A. Laura and V. Sonzogni	985	Kirsch Problem and the Lower Natural Frequencies of a Clamped Square-plate
	989	*Book Review*
	991	*News and Notices*
	995	*Publications Received*
Volume 24 Contents and Author Index	I	